

### I should already know:

What physical fitness is.

### I will learn:

- How exercise effects my body.
- How to warm up and cool down effectively.
- What the 5 components of physical/health related fitness are.
- What the 6 components of skill related fitness are.
- Which fitness components are most useful in different sports/activities.
- How to test my fitness levels and record my scores.
- Why it is important to have good fitness levels.

### This will help in the future:

Health and fitness units in BTEC and GCSE PE.

### Key Words

Component	Definition
Fitness	The ability of the body to meet the demands of the activity.
Warm up	Preparing the body for physical activity. 3 phases; pulse raiser, mobilisation and mental preparation.
Cool down	Returning the body to pre-exercise state. 2 phases; gradual decrease of heart rate and stretching.
Physical components	Allow you to be healthy and participate in day-to-day activities.
Skill components	Allow you to perform the actions required for the sport/activity.
Fitness tests	A range of tests which will allow you to record and track your fitness.
Normative data	A set of data taken from a large, randomly selected sample which can be used to calculate averages and trends.



### Greater Depth Challenge

Consider how different sports will have different health and skill demands. What makes one performer better than another?

### Further Reading

Components of fitness:

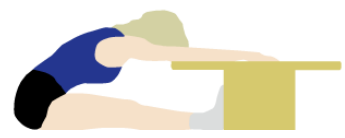
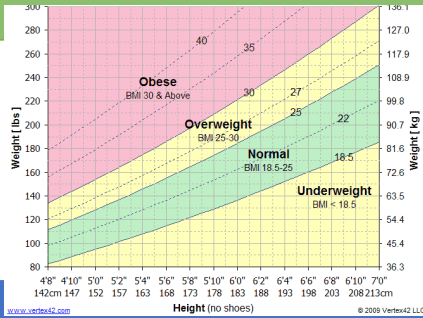
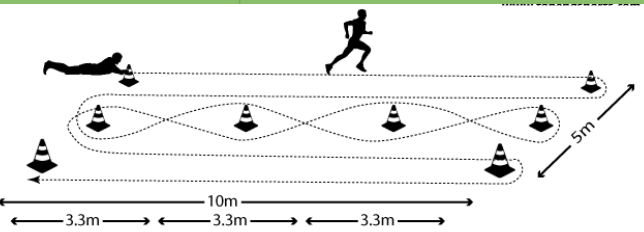
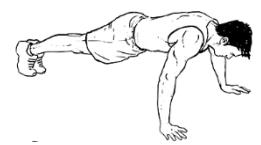
<https://www.bbc.co.uk/bitesize/guides/zckcdmn/revision/2>

BMI Calculator:

<https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/>

### Physical Components of Fitness

Component	Definition	Fitness Test
Cardiovascular Endurance	Ability of the heart, lungs and blood to transport oxygen to working muscles during sustained physical activity.	Multi-stage fitness test Forestry step test
Muscular Endurance	Ability of voluntary muscles to continue contracting over a period of time against a resistance load.	1 minute press up test 1 minute sit up test
Strength	The amount of force (in Kg or N) that can be generated by a muscle or muscle group.	Grip Dynamometer
Flexibility	The ability to move a joint fluidly through its complete range of motion.	Sit and reach
Body Composition	The relative ratio of fat mass to fat-free mass in the body.	Body Mass Index (Height and Weight)



### Skill Components of fitness

Component	Definition	Fitness Test
Agility	The ability to quickly and precisely move or change direction without losing balance or time.	Illinois agility test
Balance	The ability to maintain centre of mass over a base of support.	Stork test
Speed	The ability to put body parts into motion quickly. $Speed = \text{Distance} / \text{Time}$	35m Sprint
Coordination	The smooth flow of movement when using 2 or more body parts together.	Alternate hand ball toss
Power	The ability to perform strength actions quickly. $Power = \text{Strength} \times \text{Speed}$ .	Vertical jump test
Reaction Time	The time taken to respond to a stimulus and the initiation of a response.	Ruler drop test

